CLAIMS

1. A device for reducing energy losses in a machinery unit (1), having at least one part (4, 6/23, 26, 29, 31, 32) which is arranged to rotate in fluid about a rotation axis (6/21, 22) in a substantially closed chamber (3/33) delimited in the radially outward direction by means of a wall (18/35) extending around the rotation axis, characterized in that the wall (18/35) has a radially inward facing wall surface (10/38) extending wholly or partially around the revolution, which wall surface is a highly smooth low-friction surface against the fluid and extends close to, but with an interspace (41) to the radially outer surface (45) which is generated around the revolution by the rotary part (4, 6/23, 26, 29, 31, 32), and in that the interspace is suited to minimizing the rotating fluid volume and, at the same time, maintaining necessary width for a boundary layer formed in the fluid between the generated surface and the wall surface.

2. The device as claimed in claim 1, characterized in that said wall surface (38) is constituted by the inside of the housing of the machinery unit (1).

3. A device for reducing energy losses in a machinery unit (1), having at least one part (4, 6/23, 26, 29, 31, 32) which is arranged to rotate in fluid about a rotation axis (6/21, 22) in a substantially closed chamber (3/33), characterized by a screening member (8/35), which extends in the form of a screen wall wholly or partially around the rotary part and is arranged to divide the fluid chamber into an inner part-chamber (14/37), which is faced by a low-friction surface against the fluid, in the form of a highly smooth screen surface (10, 38) of the screen wall, and in which the fluid is allowed to rotate with the rotary part in its rotation motion, and an outer part-chamber (13/36), in which the fluid substantially is not jointly transported upon rotation of the rotary part.

4. A device for reducing energy losses in a machinery unit (1), having at least one part which is arranged to rotate in fluid about a rotation axis (6/21, 22) in a substantially closed chamber (3/33) which is asymmetrical about the rotation axis such that the volume of the chamber varies in the course of a rotation revolution, characterized by a screening member (18/35), which extends in the form of a screen wall wholly or partially around the rotary component and is arranged to divide the fluid chamber into an inner part-chamber (14/37), which is faced by a highly smooth screen surface of the screen wall and in which the fluid is allowed to rotate with the rotary component in its rotation motion, and an outer part-chamber (13/36), in which the fluid is not jointly transported upon rotation of the rotary component, and the screen wall being situated such that the inner part-chamber is arranged to hold a fluid volume which is substantially invariable over the rotation revolution.

5. The device as claimed in patent claim 4, characterized in that the machinery unit is constituted by a hydraulic rotating axial-piston machine of the displacement type, having a drive shaft (20) and a driving pulley (29) which is angled relative to the longitudinal axis of the axial pistons (24) for cooperation with the axial pistons, which axial pistons are movable to and fro in their cylinder bores (25) in a cylinder drum (23) rotatable about a rotation axis (22).

6. The device as claimed in patent claim 5, characterized in that the drive shaft (20) and the rotation axis (22) of the cylinder drum (23) are angled relative to each other.

7. The device as claimed in patent claim 5, characterized in that the screening member (35) is configured as an angled pipe having two axes of symmetry which are angled relative to each other, of which the one is arranged to coincide with the drive shaft (20) and the other is

arranged to coincide with the rotation axis (22) of the cylinder drum (23).